

Chapter 2: Background

Overview

In developing the 2030 Long Range Transportation Plan (LRTP), the region's economic, social, land use, and transportation conditions were reviewed. The 2000 Census data was used to establish baseline conditions. Demographic data was used to project future land use patterns and transportation needs. The housing, population, and employment forecasts reflect the growth assumptions that are anticipated to occur through the year 2030. Once the forecasts were determined, they were incorporated into the region's travel demand model and used to analyze demands on the transportation system.

In addition to reviewing data for the region, input was obtained from the public and other transportation stakeholders regarding the transportation issues and needs facing the region. This information was used to develop the Goals and Objectives of the LRTP.

Demographics and Trends

Population

The Wichita Metropolitan Area continues to grow. From 1990 to 2000, the area added nearly 50,000 new residents for a 12.2% increase in the population. By 2030, the area is expected to grow by approximately 123,000 new residents, an increase of 27% for a total population of 583,733. Population density data from the 2000 Census is displayed in Figure 2.1.

Households

Households increased by nearly 20,000, or by 12.7% from 1990 to 2000. Figure 2.2 shows the number of households per square mile. Figure 2.3 shows the average household size by census block group. The overall average household size for the planning area as reported in the 2000 Census was 2.56 persons. With the increase in population, and assuming that household size remains the same, the area can anticipate more than 48,000 new households by the year 2030.

Employment

Employment in the planning area in 2000 was estimated at more than 238,000 jobs. By 2030, employment in the planning area is projected to be more than 328,500 jobs, or an increase of 37%.

Population by Census Block Group

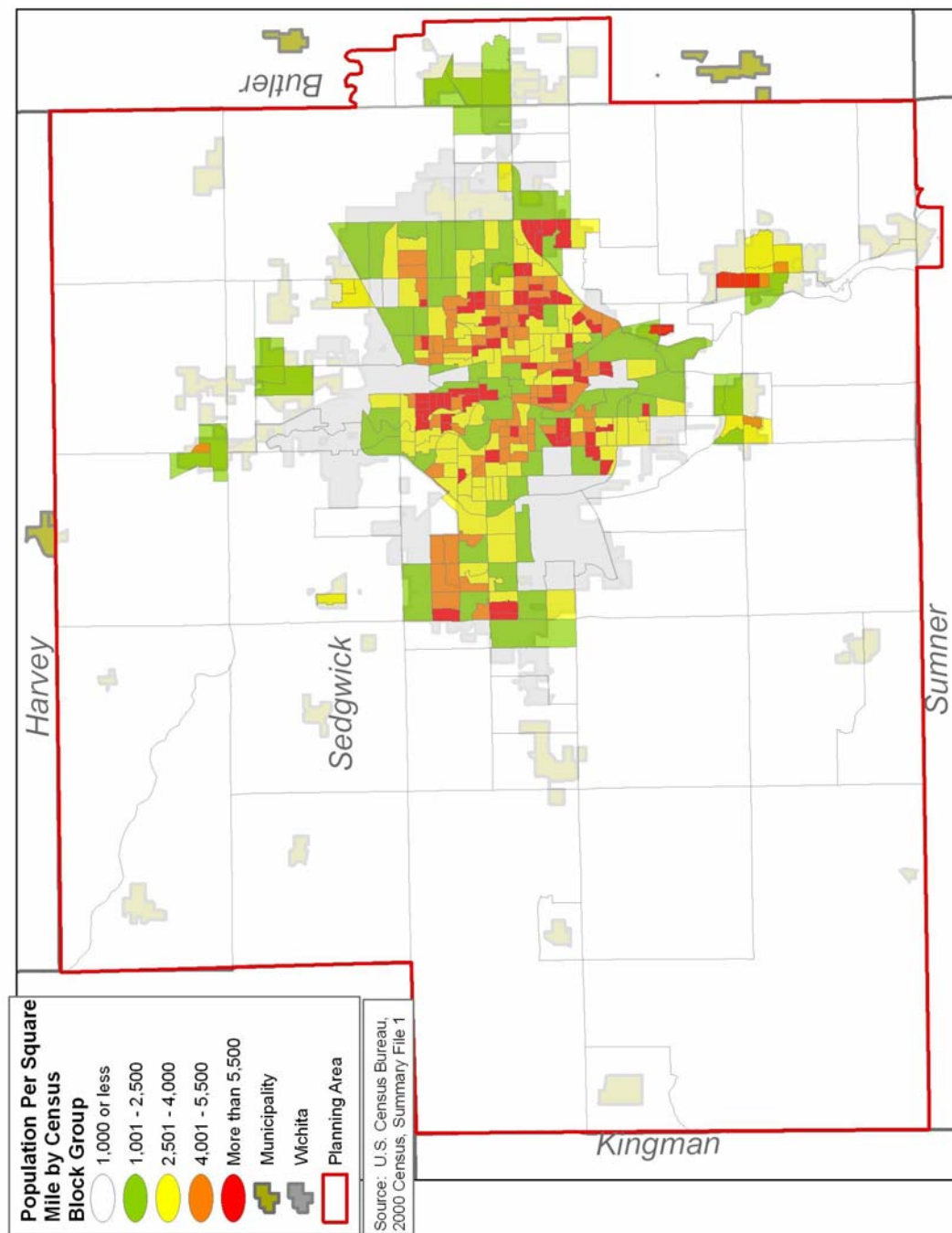


Figure 2.1: Population by Census Block Group, 2000 Census

Number of Households by Census Block Group

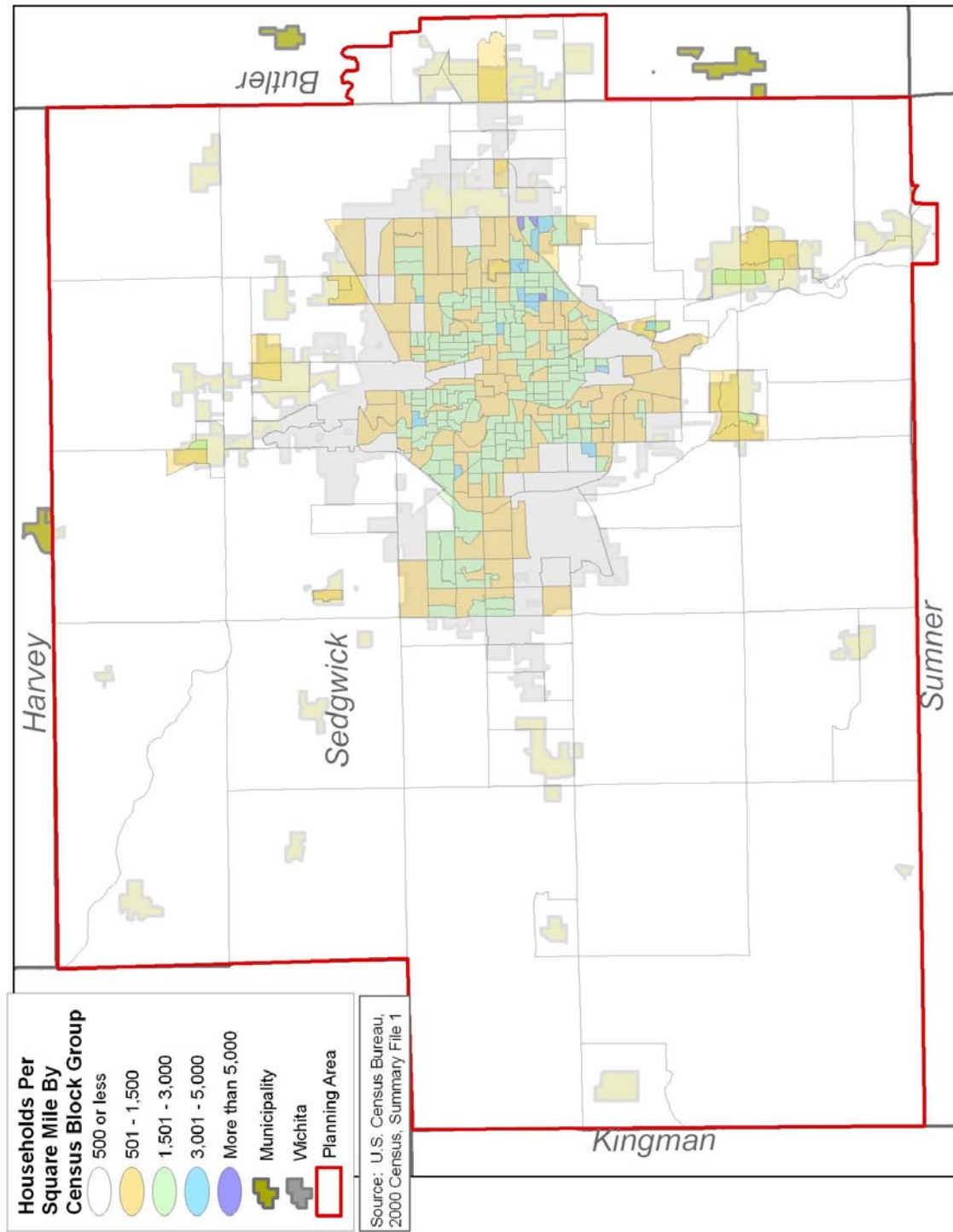


Figure 2.2: Number of Households per Square Mile, 2000 Census

Average Household Size

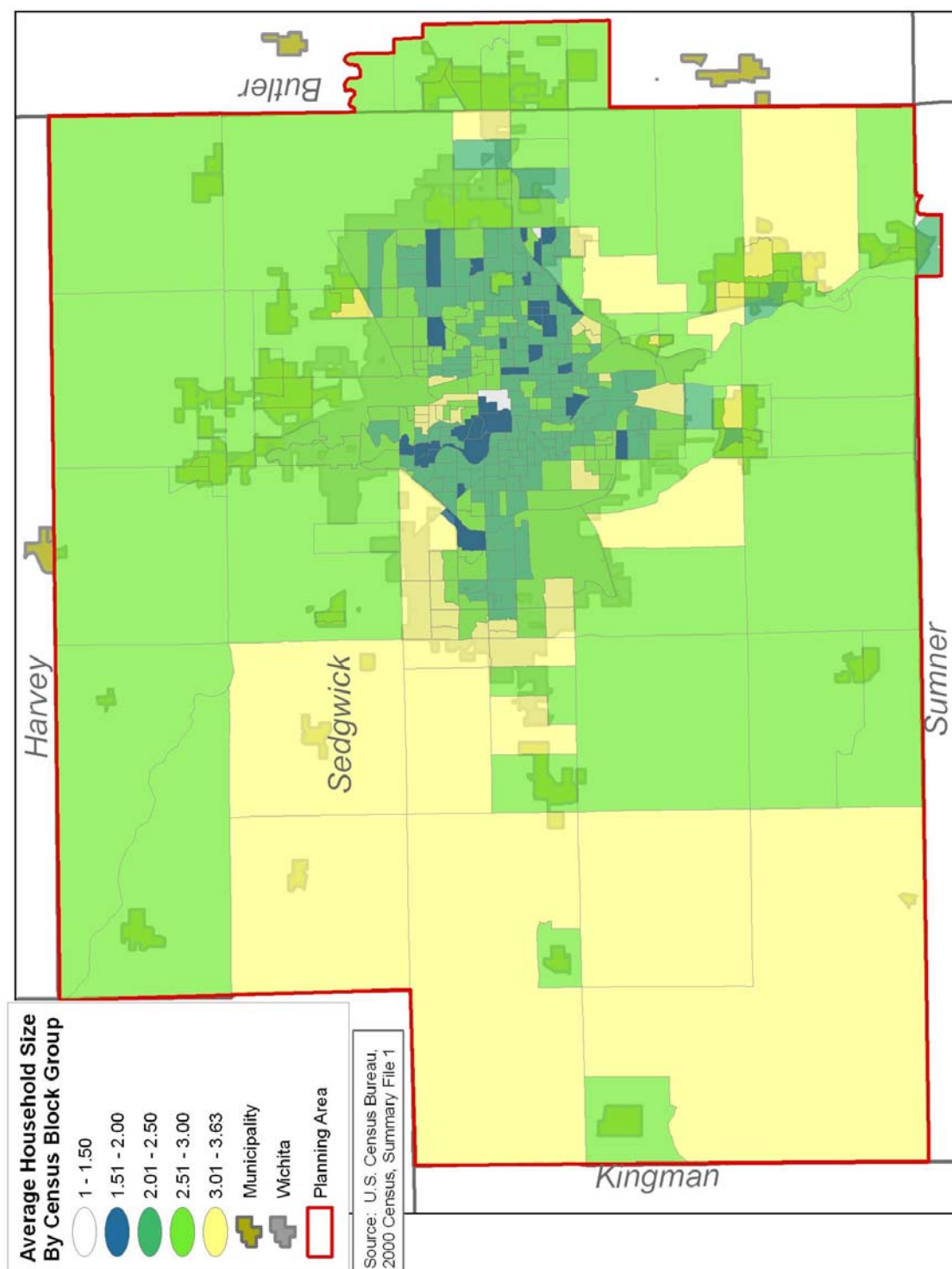


Figure 2.3: Average Household Size, 2000 Census

Growth Areas

If past growth trends continue most growth will occur outside the current city limits of Wichita. Figure 2.4 shows the projected areas of population growth in the planning region. This pattern will result in a population that is spread out, resulting in the need for additional transportation improvements to get to work and to meet lifestyle requirements.

Population Growth Areas

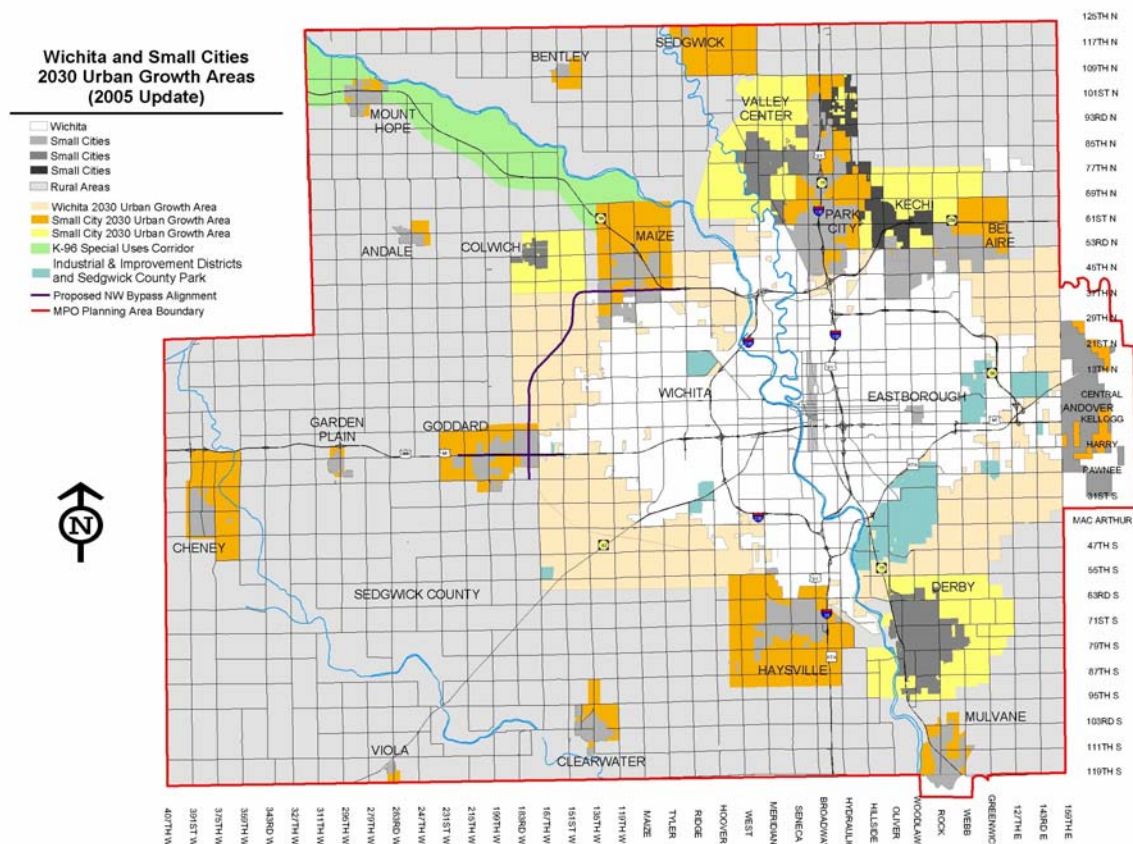


Figure 2.4: Growth Areas

Environmental Justice

The issue of how federal investments impact low-income and minority populations is known as environmental justice. In transportation, environmental justice policy ensures that low income and minority populations are afforded the same benefits of transportation investments and that they do not disproportionately bear the adverse impacts of an investment. As an example, the siting of a major highway through low income or minority communities without providing access could be perceived as an environmental justice issue. Planning agencies are charged with making sure that these types of issues – intentional or not – are considered during the planning process.

Environmental justice also requires that all potentially affected groups be fairly and fully engaged in transportation planning and decision making. This means that planning agencies may be required to go beyond the standard meeting notification process to reach these communities, or may need to hold meetings at times and places that are more accessible for low income or minority groups. Public involvement activities are noted in this chapter and Appendix A.

To effectively address environmental justice policy, the LRTP must ensure that transportation needs of low-income and minority populations are identified and documented and that the impacts of proposed actions on these groups are considered.

Minority Populations

For this calculation, minorities include the wide diversity of races found in the Wichita study area. Minorities are people who consider themselves other than white or non-Hispanic white. Figure 2.5 shows the percent of minority population for areas with the region. From the 2000 Census, the total minority population is over 107,000 people, making up 23.3% of the total population. Hence, census tracts having minority population greater than 23.3% qualify as environmental justice areas. In the planning area these are concentrated in North Central Wichita, with the next highest population in the southeastern part of the city.

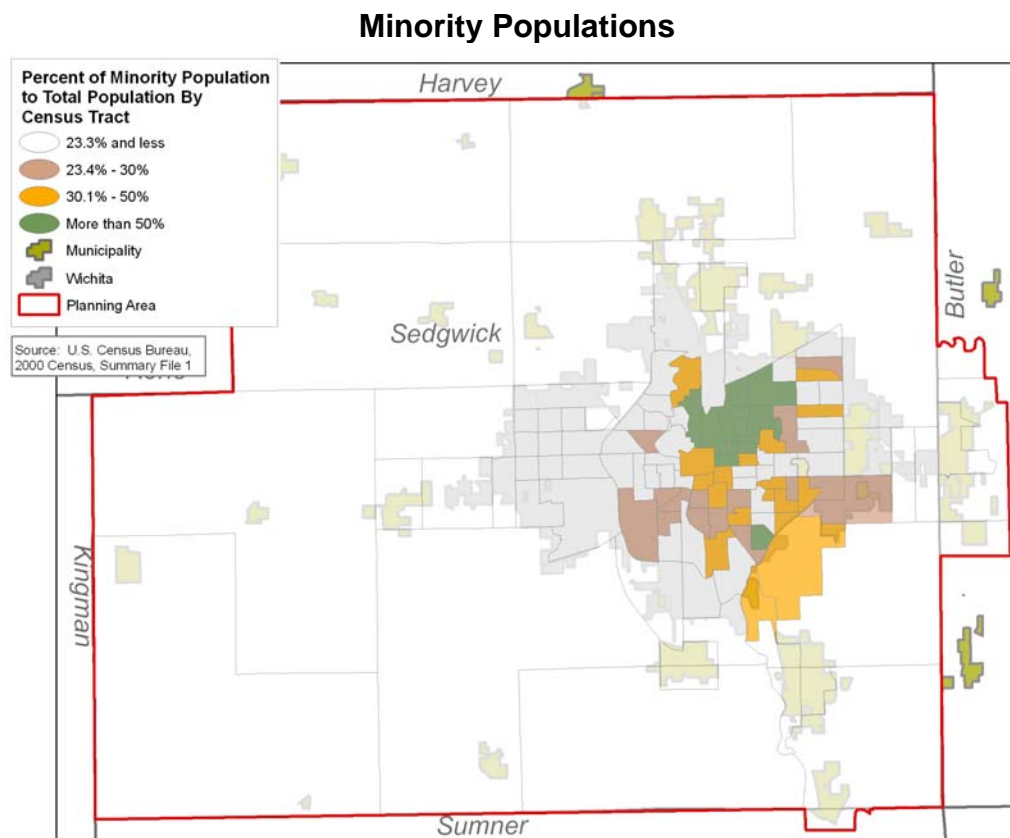


Figure 2.5: Percent of Minority Populations

Low Income Populations

Identifying low income populations is a two step process. Environmental justice regulations use the US Department of Health and Human Services Poverty Guidelines which are based on household size to determine low-income households. In the study area, the average household size is 2.54 residents, which translates into a 2004 poverty level of \$14,207 or less in annual income.

In step 2, the closest 2000 Census income group is for households earning \$10,000 to \$14,999. Therefore, all households in the study area that earn less than \$15,000 are considered low-income. The percentage of total households in the study area that earn less than \$15,000 annually is 13.5%. Census tracts with low-income households greater than 13.5% (Figure 2.6) of the total households are considered to be environmental justice areas. The highest concentration of low income population is in North Central Wichita with the next highest population west and southwest of that area.

Low Income Households

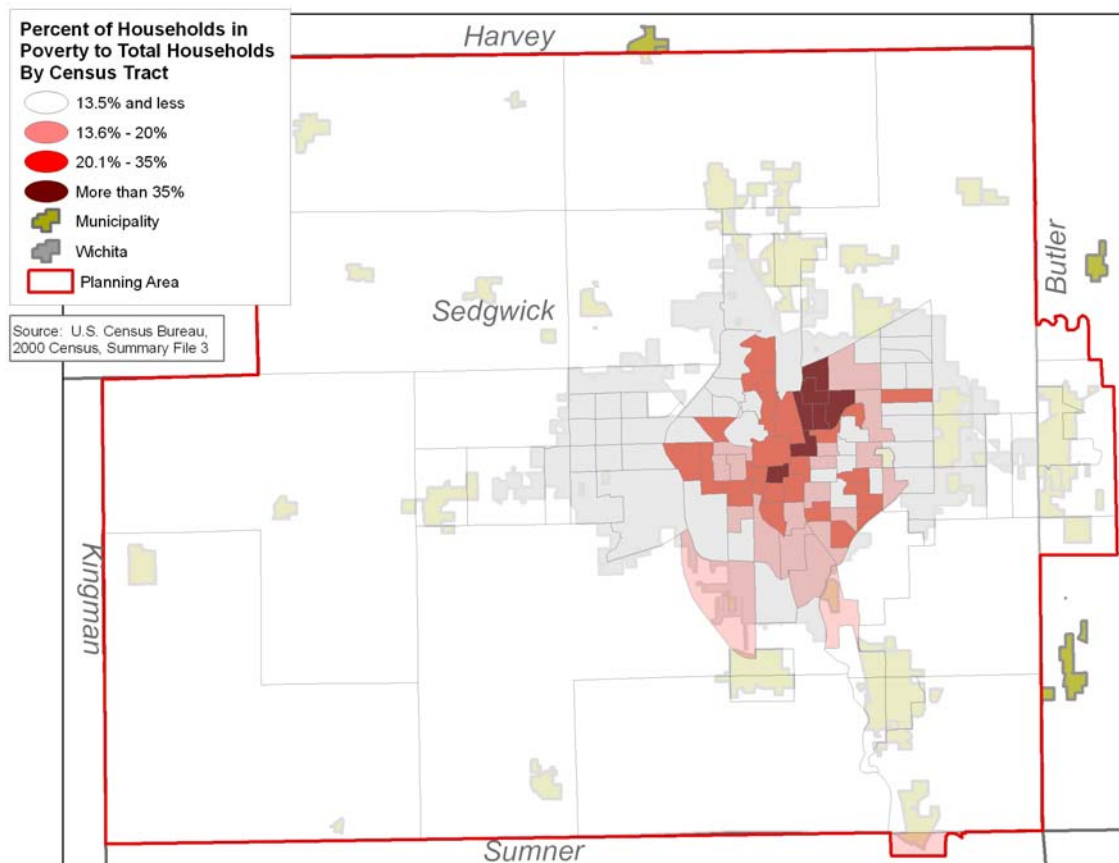


Figure 2.6: Percent of Low-Income Households

Outreach

The second step of incorporating environmental justice into the planning process is reaching out to relevant groups. The public involvement process for the LRTP included a significant outreach effort to low-income and minority populations. While advertisements and project information were placed in the major regional newspapers, they were also placed in newspapers that serve minority segments of the population. Advertisements for the public meetings were also placed on transit buses, the electronic display at the Orpheum Theatre, and banners on railroad overpasses.

The LRTP project received front-page coverage in the Wichita Eagle, interviews on KNSS radio and KAKE television with WAMPO Transportation Planning Manager and an article appeared in the Wichita Business Journal highlighting planning activities.

The public meetings were held at a variety of locations throughout the Wichita area with most locations easily accessible to the areas of the city with higher populations of low-income and minority citizens. WAMPO and Wichita Transit coordinated to provide free shuttle service to and from the meetings. A Spanish speaking interpreter was available at all public meetings.

Three newsletters were published during the course of the project in both English and Spanish. Electronic versions of each newsletter were placed on the project website www.WAMPOplan.org.

More information on the public involvement process is provided later in the chapter and in Appendix A.

Impacts of Proposed Actions

The third and final step of incorporating environmental justice into the planning process is the consideration of the impacts of the proposed actions on the relevant groups.

WAMPO conducted an analysis of the impacts of the TIP on identified areas having an above average percentage of minority populations and with an above average number of low-income households. The following tables document the findings of that study. Table 2.1 summarizes the projects in the TIP; Table 2.2 provides a summary of funding; and Table 2.3 shows the impacts on low-income and minority populations.

Figure 2.7 shows TIP project locations in relationship to those areas that have been identified as having a significant percentage of low-income households. Figure 2.8 shows the relationship of TIP projects with those areas having a significant percentage of minority population.

The results show that the low-income and minority areas do not have disproportionately high adverse impacts and that these areas are receiving a fair proportion of the total investments in transportation improvements.

Project Summary: TIP 2004-2008

	Roads & Others	Bridges	Intersections	Total
SG County	14	37	0	51
City of Wichita	105	25	14	144
Metropolitan Cities	6	2	1	9
KDOT	38	2	0	40
Total	163	66	15	244

Table 2.1: Summary of projects in the 2004-2008 TIP

Funding Summary: TIP 2004-2008

	2004-2006	2007-2008	Total
SG County	\$51,793,000	\$28,381,000	\$80,174,000
City of Wichita	\$295,593,000	\$78,998,000	\$374,591,000
Metropolitan Cities	\$8,575,000	\$5,794,000	\$14,369,000
KDOT	\$28,301,000	\$35,084,000	\$63,385,000
Total	\$384,262,000	\$148,257,000	\$532,519,000

Table 2.2: Summary of funding for the 2004-2008 TIP

Minority and Low-Income Results: TIP 2004-2008

	Tracts	Projects	Funding
Minority Populations	45	38	\$195,870,750
Low Income	50	51	\$216,218,250
	% of All Tracts	Proportion of Projects	Proportion of Total \$ Investments
Minority Populations	38	16	37
Low Income	42	21	41

Table 2.3: Results of TIP projects on Minority and Low-Income Populations

Total Census Tracts in SG County = 118

Average Minority Population = 23.6 %

Average Household Size = 2.56

Households with Less than \$15,000 Income in SG County = 13.6 %

Median Household Income in SG County = \$42,485

Minority Population, Low Income, and 125 % poverty guidance: 2000 Census data

Distribution of Transportation Improvements – Low-Income Areas

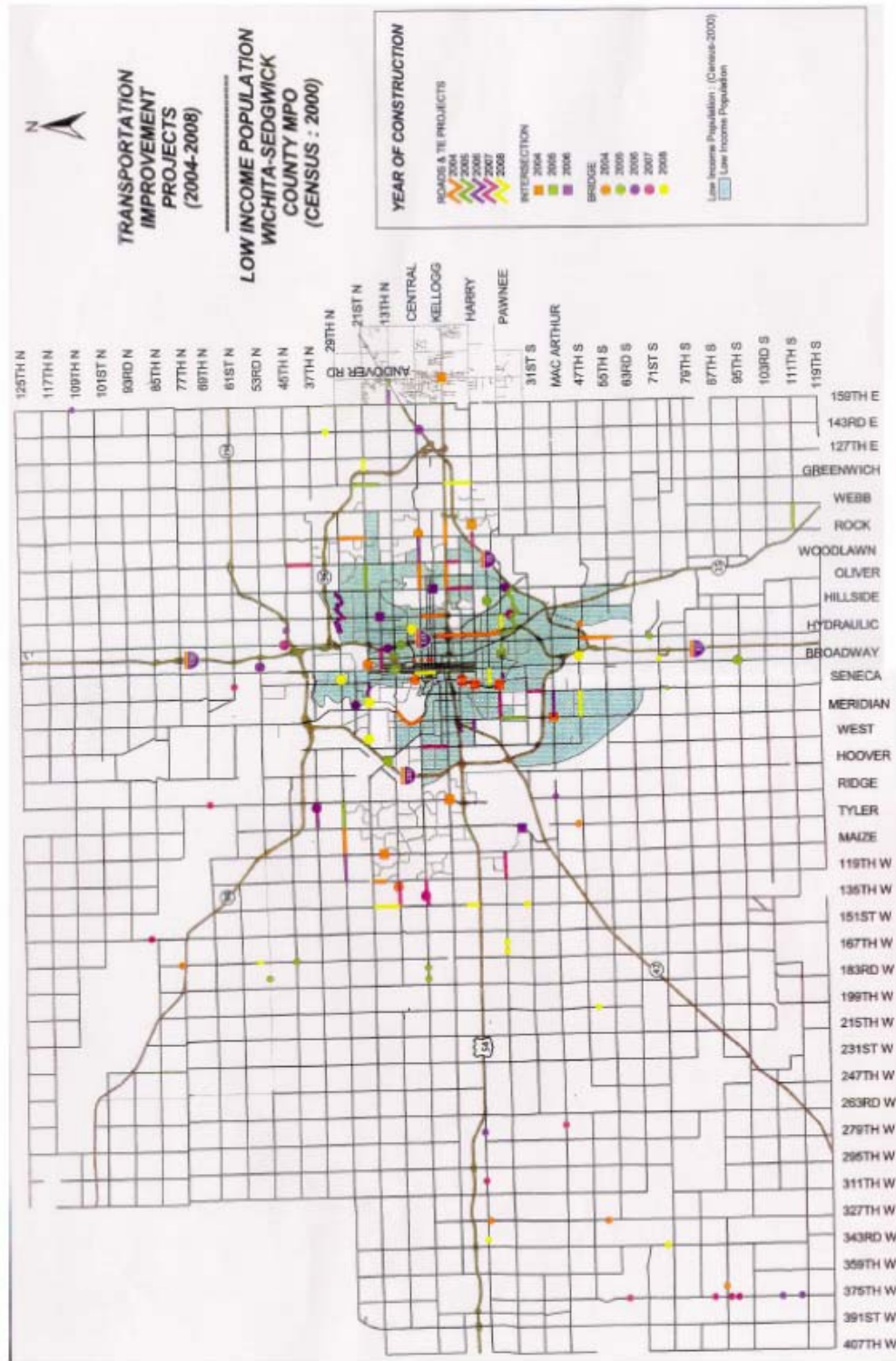


Figure 2.7: Distribution of Transportation Improvements – Low-Income Population Areas

Distribution of Transportation Improvements – Minority Population Areas

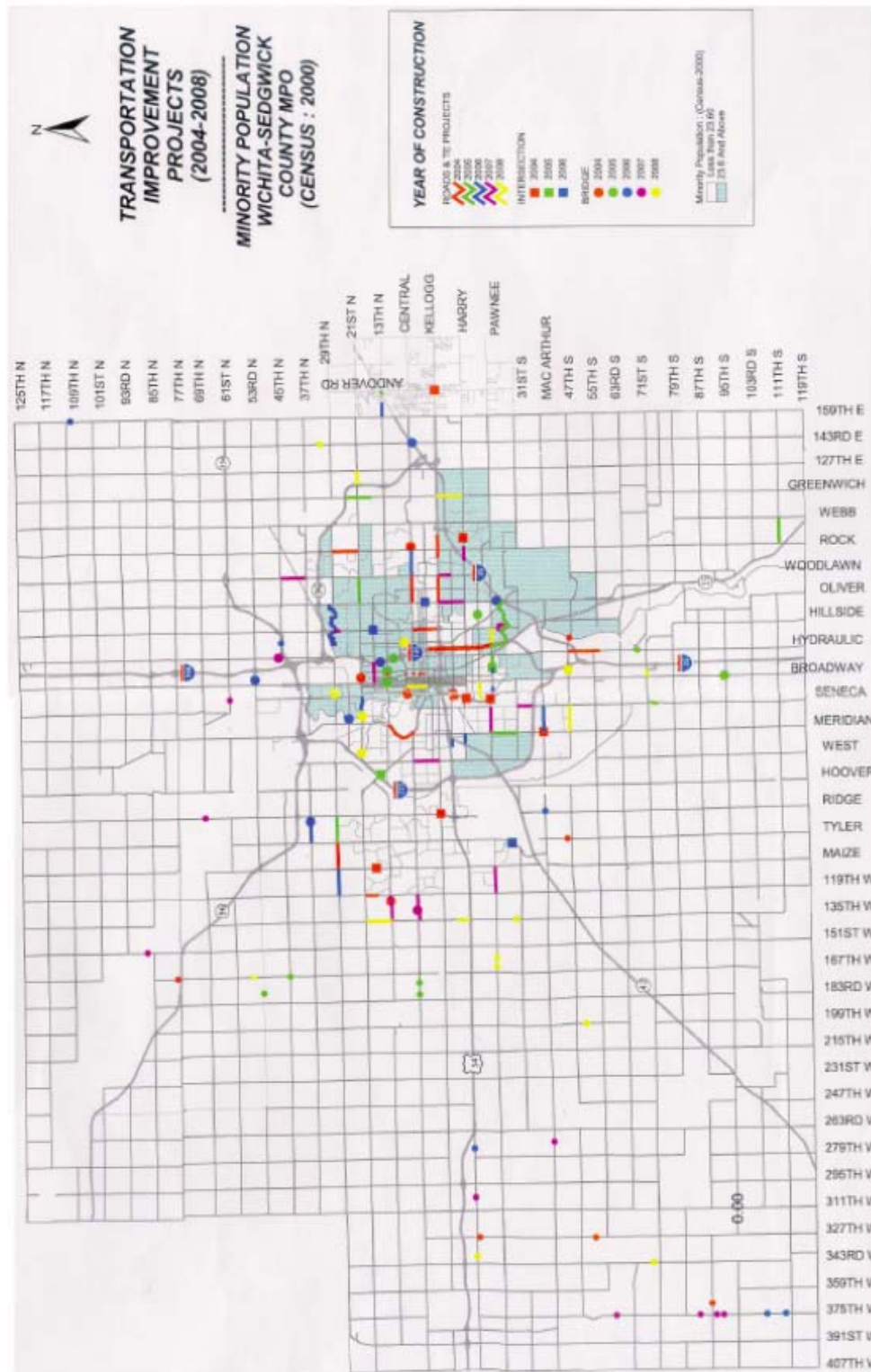


Figure 2.8: Distribution of Transportation Improvements – Minority Population Areas

Environmental Trends

Air Quality

Air quality is a serious issue that impacts public health and especially affects children, the elderly and people with respiratory ailments. The WAMPO region is currently considered to be a clean air area, but the potential problem of ground-level ozone is on the horizon. The ozone issue was discussed in the 2003 – 2004 Kansas Air Quality Report, published by the Kansas Department of Health and Environment, Bureau of Air and Radiation in October 2004.

The ozone issue may affect future transportation investments and decisions, as well as the future growth of the Wichita area. Although ozone is not formed directly by automobile emissions, motorized vehicles contribute the pollutants (hydrocarbons [HC] and nitrous oxide [NO_x]), which react with sunlight to form ozone. Therefore, to proactively address this potential problem, an understanding of the ramifications of exceeding the air quality standards is important.

The Clean Air Act was first written in 1977, and amended in 1990. The U.S. Environmental Protection Agency (US EPA) is in charge of implementing the law, and along with the U.S. Department of Transportation (US DOT), has issued regulations to ensure that metropolitan areas meet air quality standards. The US EPA establishes the National Ambient Air Quality Standard (NAAQS); state, local and tribal agencies are responsible for monitoring the quality of air in their area and reporting to the US EPA. The US EPA determines if an area is in compliance with and conforms to the air quality standards.

There are a number of classifications for air quality in metropolitan areas, ranging from attainment (an area that meets or exceeds air quality requirements) to severe (a nonattainment area). There are a number of levels in the nonattainment category and the regulations vary depending upon the classification. In any case however, if a metropolitan area is in nonattainment, another layer of regulation becomes part of the planning process for transportation investments and involves the federal, state and local government in determining the process to improve the air quality.

If the WAMPO area falls into nonattainment status for ozone, the state would be required to develop a State Implementation Plan (SIP). The SIP would detail regulations for reducing automobile (and other pollution sources) emissions and reviewing the metropolitan area transportation plans to make certain that projects in the plans improve air quality rather than harm it.

At the metropolitan level, the transportation planning processes would be affected. The WAMPO would be required to conduct a “conformity” analysis on all the plans (i.e., the LRTP, Transportation Improvement Program (TIP), etc.) before they could be accepted by the US DOT. This air quality conformity

analysis, which is a mathematical model used to predict the impacts of future projects on air quality, would need to be done at least every three years or when a new plan or plan amendment is proposed, until the area returns to attainment status.

In addition to the conformity analysis, the metropolitan area would need to implement a number of other changes including consulting with the appropriate state and federal agencies and implementing Transportation Control Measures (TCM). TCM are strategies to reduce the use of motorized vehicle use or to improve the operation of the road system; some examples are ridesharing, transit services or encourage the use of non-motorized modes.

In the future if the WAMPO area is classified as non-attainment, the LRTP will be revised to include projects to reduce vehicle emissions and promote activities that support that end. At that time procedures for a conformity analysis will be developed and conducted to determine if projects in the LRTP succeed in reducing emissions.

The US EPA has guidelines in place to making sure that the appropriate advances are being made by a metropolitan area to meet the air quality standards. The US EPA establishes a timeline of when areas need to be in attainment. For an area classified as marginal, improvements would have to be made within 3 years. There are serious implications if a conformity lapse occurs, which is when MPO plans do not conform or a deadline is missed, in that the use of Federal transportation money is restricted to use for a select set of projects.

There is a significant amount of information available regarding the implications, processes and regulations for a non-attainment area. The US Federal Highway Administration's Planning, Environment and Realty¹ department offers a basic guide for state and local officials that addresses the steps to become a clean air area.

Public and Stakeholder Involvement

A variety of opportunities and channels of communication were employed for Wichita area citizens, public agencies, transportation agencies, freight transportation providers and other stakeholders to review materials and offer their ideas and opinions related to the 2030 LRTP.

Project newsletters were developed and distributed in advance of the three scheduled rounds of public meetings. The full-color, 11"x17" single-fold newsletters, were produced in both English and Spanish and served as an

¹ Transportation Conformity: A Basic Guide for State and Local Officials – 2005 Update, at http://www.fhwa.dot.gov/environment/conformity/basic_gd.htm

introduction to project history, goals and objectives and public participation opportunities. Each newsletter also provided a clip-and-send opportunity for written comments to be submitted to the project team.

WAMPOplan.org was developed as a stand-alone, project website with a direct hyperlink available through the City of Wichita's homepage.



Three rounds of public meetings were conducted during the spring and summer of 2005 in various venues throughout the planning area. Representatives from the hosting agencies (WAMPO and Wichita Transit) as well as KDOT and FHWA were in attendance to support the consultant facilitated meetings. Each meeting consisted of a formal presentation followed by a question-and-answer session and concluding with an open-ended opportunity for attendees to interact directly with project representatives. Comment cards were provided for those that wished to express their opinions in writing, and a translator was present to facilitate communication with non-English speaking populations.

WAMPO and Wichita Transit coordinated in providing free shuttle service to and from the meeting places. Advertisements were placed in regional newspapers including those that serve minority populations. Additional advertisements included electronic display at the Orpheum Theatre, banners on railroad overpasses, flyers and notices to surrounding metropolitan communities and ads in transit facilities and passenger vehicles.

To ensure early participation of specific, targeted audiences, one-on-one interviews were scheduled and facilitated by various members of the project team. A formalized discussion guide was developed and followed for each interaction to assist with recording and analyzing responses consistently. Interviews included representatives from many stakeholder groups and organizations.

Additional details regarding public and stakeholder involvement can be found in Appendix A.

Emerging Issues

While many issues were raised during the public meetings and stakeholder interviews, a number of issues emerged that were general concerns for the region and should be addressed through this Plan.

US-54 Freeway: US-54/US-400 (Kellogg) should continue to be upgraded to a freeway across Sedgwick County and through the City of Andover. US-54/US-400 is a route that is growing in statewide importance with traffic volumes across the state approaching the level where upgrading to a four-lane divided highway. US-54/US-400 carries a significant volume of commercial trucks. Recommendations for highways are included in Chapter 3, Part 1.

Wichita-Valley Center Floodway Crossings: The east-west flow of traffic in Wichita is a concern to many in the region due to the barrier created by the Wichita-Valley Center Floodway. Several past studies have analyzed this situation with the recommended improvements including new crossings at 13th Street and 25th Street. Recommendations for roadway improvements are included in Chapter 3, Part 1.

South Area Transportation Study: Many of the cities in the southern part of the metropolitan area are interested in the potential to improve mobility and access to this region. A “South Area Transportation Study” will be initiated in the Fall of 2005 to determine the benefits of a South Bypass or other transportation improvements, their impacts on land use, and a preferred alignment and right-of-way requirements if a bypass is recommended. New major roads can have a significant economic impact on the surrounding area through improving regional access, encouraging new development, and providing an opportunity for rejuvenating the area. Recommendations for studies and other roadway improvements are included in Chapter 3, Part 1.

Downtown Redevelopment: A number of significant developments have been initiated or are being considered for downtown Wichita, including: Gander Mountain, the Water Walk, a proposed Arena, and neighborhood redevelopment associated with the Arena. These changes will have a significant impact on the operation of Kellogg (US-54/400), its interchanges, and the downtown street

system. Insufficient information was available to completely analyze these developments during the development of the LRTP. However, studies of the arena and surrounding redevelopment will be completed within the next year and provide a traffic impact analysis of these facilities. Recommendations for studies and other roadway improvements are included in Chapter 3, Part 1.

Northwest Bypass: Efforts should continue to preserve the necessary right-of-way and to identify funding for the construction of the Northwest Bypass (K-254) from Kellogg (US-54) to I-235 near Maize. Recommendations for roadway improvements are included in Chapter 3, Part 1.

Interchanges: A number of freeway interchanges along Kellogg (US-54), I-135, and I-235 are experiencing traffic congestion during the peak periods each day. Some of the interchanges that have been identified through public and stakeholder involvement include: I-235 and Kellogg (US-54), I-235 and Central, I-135/I-235/K-254, and I-135 and K-96. Recommendations for studies and other roadway improvements are included in Chapter 3, Part 1.

Access Between Cities and to Highways: Many of the communities in the Metropolitan Area stressed the importance of maintaining good roadway connections between cities and from each city to the highway system. The number of access points along these routes should be controlled to protect mobility. Recommendations for roadway improvements are included in Chapter 3, Part 1.

Congestion on Streets and Roads: A number of streets and roads in the planning area are congested each day during peak traffic periods. The travel demand model has been used to analyze congestion and the results have been used in developing the recommended roadway improvement projects. Recommendations for roadway improvements are included in Chapter 3, Part 1.

Evening Service for Public Transportation: A large percentage of the people who participated in the public meetings were concerned with the lack of evening service by the public transportation system. The lack of evening service creates difficulties for those people who are transit-dependent and work second and third shifts. Additional funding is necessary to provide some form of evening public transportation. Recommendations for improvements to public transportation are included in Chapter 3, Part 2.

Sidewalks on Both Sides of Streets: Many comments were received from the public and transportation stakeholders regarding the need to provide sidewalks on both sides of all streets. Providing sidewalks that complement the public transportation system were believed to be a high priority. Recommendations for improvements to pedestrian facilities are included in Chapter 3, Part 3.

Bicycle Facilities: Many comments suggested the need to connect existing sections of bicycle trails and to expand the bicycle facilities in the region. Recommendations for improvements to bicycle facilities are included in Chapter 3, Part 3.

Street/Railroad Grade Separations: At-grade street/railroad crossings continue to be a concern for locations in Wichita as well as other cities in the Metropolitan Area. The concerns were for both the delays to motor vehicle traffic caused by trains as well as the safety of the crossings. Recommendations for rail improvements are included in Chapter 3, Part 4 “Rail Transportation and Freight Movement” and in Chapter 3, Part 6 “Safety and Security”.

Intermodal Freight Facilities: A number of comments were received suggesting the need to study and develop an intermodal freight facility within the region. The region is a crossing point for freight carried by highways, rail, and air. Recommendations are included in Chapter 3, Part 4.

Summary

The region’s economic, social, land use, and transportation existing conditions and trends were used in the development of the LRTP. Areas with low-income and minority populations that exceed the established levels were identified so that opportunities for participation in the planning process were provided and that no one group experiences a disproportionate share of impacts of investments or receives a disproportionate share of the benefits.

The Wichita area is currently considered to be a clean air area, but ozone may become a potential significant pollutant and affect future transportation investments and decisions, as well as the future growth of the Wichita area. Close monitoring and attention to the potential problems are important.

A variety of opportunities and channels of communication were employed for Wichita area citizens, public agencies, transportation agencies, freight transportation providers and other stakeholders to review materials and offer their ideas and opinions related to the 2030 LRTP. A number of issues were of general concern to many stakeholders and the public. These issues are addressed in the LRTP.